

What is claimed is:

1. A method for reducing a warm-up time of a lamp by using a light-emitting device with a fast start-up characteristic as an auxiliary light source for a cold cathode fluorescent lamp (CCFL) to reduce the start-up time  
5 of a scanner, comprising:

(a) igniting said cold cathode fluorescent lamp and said light-emitting device simultaneously so that said light-emitting device may serve as an auxiliary light source before said cold cathode fluorescent lamp reaches a stable status; and

10 (b) as the time goes, the current supplied to said light-emitting device is adjusted based on the luminance of said cold cathode fluorescent lamp so that the light source for illuminating a surface of a document may be kept stable.

2. The method for reducing a warm-up time of a lamp of claim 1, wherein the light source of said light-emitting device is formed by the light from  
15 light-emitting diodes.

3. The method for reducing a warm-up time of a lamp of claim 1, wherein the light source of said light-emitting device is formed by the light which emitted from a light-emitting diode and then transmitted through a light guide device.

20 4. The method for reducing a warm-up time of a lamp of claim 1, wherein the step (b) of adjusting the current supplied to said light-emitting device based on the luminance of said cold cathode fluorescent lamp is carried out by decreasing and controlling the current flowing through said light-emitting device based on the increase in luminance of said cold cathode fluorescent  
25 lamp after ignition.

5. A method for reducing a warm-up time of a lamp by using a

light-emitting device with a fast start-up characteristic as an auxiliary light source for a cold cathode fluorescent lamp to reduce the start-up time of a scanner, comprising:

igniting said cold cathode fluorescent lamp and said light-emitting diodes  
5 simultaneously so that said light-emitting device may serve as an auxiliary light source before said cold cathode fluorescent lamp reaches a stable status;

detecting the luminance of the integrated light source;

determine the current amount required for said light-emitting device according to the detection result; and

10 varying the current flowing through said light-emitting device according to the required current amount so that the light source for illuminating the surface of the document may be kept stable.

6. The method for reducing a warm-up time of a lamp of claim 1, wherein the light source of said light-emitting device is formed by the light from  
15 light-emitting diodes.

7. The method for reducing a warm-up time of a lamp of claim 1, wherein the light source of said light-emitting device is formed by the light which emitted from a light-emitting diode and then transmitted through a light guide device.

20 8. The method for reducing a warm-up time of a lamp of claim 1, wherein the step of detecting the luminance of the integrated light source is carried out by using a photo sensor.

9. An apparatus for reducing a warm-up time of a lamp, comprises:

an image sensor module;

25 a cold cathode fluorescent lamp provided on one side of said image sensor module; and

a plurality of light-emitting devices provided on the other side of said image sensor module to serve as an auxiliary light source for said cold cathode fluorescent lamp when turned on simultaneously with said cold cathode fluorescent lamp to reduce a start-up time of a scanner.

5        10. The apparatus for reducing a warm-up time of a lamp of claim 9, wherein said light-emitting device is a light-emitting diode.

11. An apparatus for reducing a warm-up time of a lamp, comprises:

an image sensor module;

10        a cold cathode fluorescent lamp provided on one side of said image sensor module; and

a light guide device provided on the other side of said image sensor module, said light guide device being provided with a light-emitting device on one side thereof;

15        whereby, said light guide device in conjunction with said light-emitting device may serve as an auxiliary light source for said cold cathode fluorescent lamp when said light-emitting device is turned on simultaneously with said cold cathode fluorescent lamp to reduce a start-up time of a scanner.

12. The apparatus for reducing a warm-up time of a lamp of claim 11, wherein said light guide device is a light guide plate.

20        13. The apparatus for reducing a warm-up time of a lamp of claim 11, wherein said light-emitting device is a light-emitting diode.